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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/894,351	10/27/1997	KLAUS REDECKER	306.35565X00	8887

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EXAMINER	
MILLER, EDWARD A	
ART UNIT	PAPER NUMBER
3641	

DATE MAILED: 10/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	08/894,351	REDECKER ET AL.
	Examiner	Art Unit
	Edward A. Miller	3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *5,8,11-26 and 28-30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7,9,10 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 29 July 2002 has been entered.

3. The restriction/election of the prior prosecution continues in this RCE. Thus, claims 5, 8, 11-18, 25-26 and 28-30 are withdrawn as being to non-elected species, as the claims are best understood. Claims 19-24 stand withdrawn as being to non-elected inventions.

4. Claims 1-4, 6-7, 9-10 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims, although improved, still remain indefinite. In claim 1, lines 4-5, the recitation of "their derivatives and their salts" (two instances of "their") renders the claim indefinite, as it is not clear whether this includes salts of the derivatives, or only salts of the nitrogen containing compounds. The same possessive pronoun is either improperly used to relate back to different nouns, or the compound may be either a derivative or salt, but not both. This is indefinite. The last part [c)] of claim 1 is unclear. Does this require the combustion modifier to influence both "the combustion" [of what] and "its rate"? In other words, what is the difference of the two, and/or

what does the pronoun of "its" refer to? Is "substances ... by" superfluous? Why is this language required? Claim 6 relates to oxidants (plural case), but it is not clear if this in some way further limits the at least three oxidants of claim 1, or adds additional oxidants beyond those in claim 1. This contrasts with the language for the oxidant in claim 1, which is singular, even though at least three oxidant compounds are required. This singular vs. plural language problem exists particularly in claim 6 of the elected claims at this time. The catalyst language in claim 1 at the end is indefinite and cannot be understood. One possibility is that this requires a heterogeneous catalyst like an automobile catalytic converter. However, such outboard device clearly would not be part of the claimed composition. On the other hand, what is a homogeneous catalyst? Does this require that all compounds be in the same phase, e.g., dissolved as in a solid solution? It is not clear why this language is necessary, as opposed to just making "moderator" the last word in the claim. The catalyst language cannot be understood, as internally contradictory and/or imply something not stated. This may also be transliteration of something that means something different in the original, that it not ordinary or customary language in American English. Such language does not serve to set forth the metes and bounds of the claimed invention, whereby the claims are indefinite.

5. Claims 1-4, 6-7, 9-10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al., in view of Lund et al. '059, Wardle et al., Highsmith et al., Yoshida et al. '446 and Redeckeer et al. '485.

Blau et al. teach the basic invention which includes tetrazole fuel, with various oxidizers, including metal peroxides, perchlorates, nitrates, and mixtures thereof. Note the Abstract, col. 2, lines 30-32, col. 6, lines 1-21 and claim 26, part (a) with mixtures of oxidizers. Further detail is

found at col. 5, lines 22-55 for fuels, and additives at col. 6, lines 31-57. Substitution of specific notoriously well known ingredients, amounts or specific mixtures thereof would have been obvious to one of ordinary skill in the art. Note Lund et al. '059 col. 5, lines 1-25, e.g., as well as "Table 3" with a plurality of oxidizers, and claim 1 which claims mixtures of oxidizers. Wardle et al. teach zinc peroxide at col. 3, lines 20 and 22. Highsmith et al. generally suggests mixtures and the examples teach a plurality of oxidizers, e.g. Yoshida et al. '446, is further relevant, showing three oxidizers in "Table 1", "Example 15", e.g. Redecker et al. '485, although not understood in the narrative due to being in the German language, shows examples with 5AT and a plurality of oxidizers, including zinc peroxide and a plurality of other added conventional oxidizers.

It is well settled that optimizing a result effective variable is well within the expected ability of a person or ordinary skill in the art. *In re Boesch*, 617 F. 2d272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F. 2d 454, 105 USPQ 233 (CCPA 1955). Further, where the ingredients are well known and combined for their known properties, the combination is obvious, absent unexpected results, *In re Crocket*, 126 USPQ 186, *In re Pinten*, 173 USPQ 801, *In re Sussman*, 43 CD 518, and *In re Susi*, 169 USPQ 423. At best, this seems mere optimization of parameters by mixing known ingredients.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-4, 6-7, 9-10 and 27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable

one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

To the extent that applicants urge that the claimed compositions allegedly have improved properties in the form of improved non-toxicity, the specification is inadequate to teach, that is to enable, how to produce such results. At best, the specification is an invitation to experiment, with little in how to obtain the improved results. In contrast, the claims are quite broad, without limitation as to amounts of the substances, what the substances are, and so on. In the chemical arts, adequate exemplary teachings are required to teach the invention. Compare *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Also, see MPEP 2164.01 and cases cited therein.

8. Lundstrom '929 remains of interest.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-4, 6-7, 9-10 and 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15, 18 and 19 of U.S. Patent No. 6,453,816. Although the conflicting claims are not identical, they are not patentably distinct from each other because of clear overlap. It appears that the additives therein are substantially the

same as the additives herein, and the gas generating composition in claim 1 of '816 certainly includes gas generating compositions such as claimed herein.

11. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy of 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached daily, except alternate Fridays, from about 9:30 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
October 21, 2002

EDWARD A. MILLER
PRIMARY EXAMINER